

Bill Wallace
Hendrickson Truck Suspension System Plant 3
101 South Progress Drive West
Kendallville, IN 56755

Dear Bill Wallace:

Re: Exempt Construction and Operation Status,
113-13687-00076

The application from Hendrickson Truck Suspension System Plant 3, received on December 28, 2000, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that the following Truck Suspension Components manufacturing operation, to be located at 101 South Progress Drive West Kendallville, IN 56755, Indiana, is classified as exempt from air pollution permit requirements:

- (a) Machining and Milling operations, with a maximum capacity of 5000 tons of steel stock cutting operation per year.
- (b) Two (2) welding stations, identified as WC 614 and WC 616, with a maximum capacity of 12,000 pounds of electrode usage per year.
- (c) Rubber injection molding operations consisting of following usage for manufacturing rubber inserts:
 - 1. M.A. Hanna Rubber Compounds:

	Compounds	annual usage (pounds)
i.	49851-1	16138
ii.	49851-2	533487
iii.	49851-3	190961
 - 2. Glo-Mold Red Cleanout rubber Compound, 20000 pounds per year
 - 3. Releasomers RR-Hot-EF, 50 gallons per year
 - 4. Mold Protector #3, 50 gallons per year
 - 5. Mold Protector #4, 50 gallons per year
- (d) Phosphate coating line for cleaning and phosphatizing of suspension components consist of following usages:
Detrex 502 MR, 1600 gallons per year,
Phosphotex 685. 1100 gallons per year.
- (e) One (1) cleaning station, using Safety Kleen solvent at the rate of 32 gallons per year for removing grease and fluids from the suspension components.
- (f) One (1) touchup paint booth using aerosol-vinyl toluene alkyd resin for touching up suspension components at the rate of 30 gallons per year.
- (g) Ten (10) natural gas fired heaters, each with a maximum capacity of 250,000 Btu/hour.

The following conditions shall be applicable:

- (1) Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following:
 - (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.
- (2) Pursuant 326 IAC 6-3-2 (Process operations), the particulate matter (PM) from the welding stations shall be limited to 0.03 pounds per hour. This limit is based on the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

This exemption is the first air approval issued to this source.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

GS

cc: File – Noble County
Noble County Health Department
Air Compliance – Doyle Houser
Northern Regional Office
Permit Tracking - Janet Mobley
Technical Support and Modeling - Michele Boner
Compliance Data Section - Karen Nowak

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for an Exemption

Source Background and Description

Source Name: Hendrickson Truck Suspension Systems Plant 3
Source Location: 101 South Progress Drive West, Kendallville, IN 56755
County: Noble
SIC Code: 3417
Operation Permit No.: 113-13687-00076
Permit Reviewer: Gurinder Saini

The Office of Air Quality (OAQ) has reviewed an application from Hendrickson Truck Suspension Systems Plant 3 relating to the construction and operation of truck suspension components manufacture.

Emission Units and Pollution Control Equipment

The source consists of the following emission units and pollution control devices:

- (a) Machining and Milling operations, with a maximum capacity of 5000 tons of steel stock cutting operation per year.
- (b) Two (2) welding stations, identified as WC 614 and WC 616, with a maximum capacity of 12,000 pounds of electrode usage per year.
- (c) Rubber injection molding operations consisting of following usage for manufacturing rubber inserts:
 - 1. M.A. Hanna Rubber Compounds:

Compounds	annual usage (pounds)
i. 49851-1	16138
ii. 49851-2	533487
iii. 49851-3	190961
 - 2. Glo-Mold Red Cleanout rubber Compound, 20000 pounds per year
 - 3. Releasomers RR-Hot-EF, 50 gallons per year
 - 4. Mold Protector #3, 50 gallons per year
 - 5. Mold Protector #4, 50 gallons per year
- (d) Phosphate coating line for cleaning and phosphatizing of suspension components consist of following usages:
 - Detrex 502 MR, 1600 gallons per year,
 - Phosphotex 685. 1100 gallons per year.
- (e) One (1) cleaning station, using Safety Kleen solvent at the rate of 32 gallons per year for removing grease and fluids from the suspension components.
- (f) One (1) touchup paint booth using aerosol-vinyl toluene alkyd resin for touching up suspension components at the rate of 30 gallons per year.
- (g) Ten (10) natural gas fired heaters, each with a maximum capacity of 250,000 Btu/hour.

Existing Approvals

This is the first air permit application from this source.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the **construction and operation** be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

A complete application for the purposes of this review was received on December 28, 2000.

Emission Calculations

See Appendix A page 1 through 8 of this document for detailed emissions calculations.

Potential To Emit of Source Before Controls

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency.@

Pollutant	Potential To Emit (tons/year)
PM	0.73
PM-10	0.73
SO ₂	0.01
VOC	1.06
CO	0.92
NO _x	1.1

HAP-s	Potential To Emit (tons/year)
HAPs	<10
TOTAL	<10

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of pollutants are less than the levels listed in 326 IAC 2-1.1-3(d)(1). Therefore, the source is subject to the provisions of 326 IAC 2-1.1-3.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and/or the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-1.1-3.
- (c) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and

Emission Offset applicability.

County Attainment Status

The source is located in Noble County.

Pollutant	Status (attainment, maintenance attainment, or unclassifiable; severe, moderate, or marginal nonattainment)
PM-10	Attainment
SO ₂	Attainment
NO ₂	Attainment
Ozone	Attainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO_x) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Noble County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Noble County has been classified as attainment or unclassifiable for all criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Source Status

New Source PSD Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	0.73
PM10	0.73
SO ₂	0.01
VOC	1.06
CO	0.92
NO _x	1.1
Single HAP	0.82
Combination HAPs	0.82

- (a) This new source is **not** a major stationary source because no attainment pollutant is emitted at a rate of 250 tons per year or greater and it is not in one of the 28 listed source categories. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This new source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons/year.

This is the first air approval issued to this source.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is located in Noble County and the potential to emit any criteria pollutant is less than one hundred (100) tons per year. Therefore, 326 IAC 2-6 does not apply.

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 6-3-2 (Process Operations)

The particulate matter (PM) from the welding stations shall be limited to 0.03 pounds per hour. This limit is based on the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

326 IAC 8-2-1 (Surface coating emission limitations: applicability)

The surface coating operations at this source are not subject to this rule because the actual emissions of volatile organic compounds before controls are less than 15 pounds per day.

326 IAC 8 (Volatile Organic Compounds Rules)

There are no other Article 8 rules applicable to this source.

Conclusion

The construction and operation of this truck suspension manufacturing plant shall be subject to the conditions of the attached exemption letter 113-13687-00076

Appendix A: Emissions Calculations**Truck Suspension Components Manufacture**

Company Name: Hendrickson Truck Suspension Systems Plant 3
Address City IN Zip: 101 South Progress Drive West, Kendallville, IN 56755
CP: 113-13687
Plt ID: 113-00076
Reviewer: Gurinder Saini
Date: January 9, 2001

	units	amount
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1. Machining and Milling Operations

Annual steel usage	Tons	5000
Emission Factor for PM/PM10* (estimated) *assuming all PM to be PM10	Pounds/Tons	0.2
PM/PM10 Potential to Emit	tons/ year	0.5

2. Welding Operation

Two welding stations WC 614 and WC 616

Annual electrode usage	Pounds	12000
PM-10 Emission Factor	Pounds per 1000 Pounds	24.1
HAPs Cr & Mn Emission Factor	Pounds per 1000 Pounds	0.44
PM-10 Potential to Emit	tons/year	0.1446
HAPs Cr & Mn Potential to Emit	tons/year	0.00264

3. Rubber Injection Molding Operation

3.1 M.A. Hanna Rubber Compounds

a) Rubber Compounds 49851-1

Annual 49851-1 usage	Pounds	16138
VOC Emission Factor	Pounds per 1000 Pounds	0.0868
Total HAPsEmission Factor	Pounds per 1000 Pounds	0.0602
VOC Potential to Emit	tons/year	0.00070039
HAPs Potential to Emit	tons/year	0.00048575

b) Rubber Compounds 49851-2

Annual 49851-2 usage	Pounds	533487
VOC Emission Factor	Pounds per 1000 Pounds	0.156
Total HAPsEmission Factor	Pounds per 1000 Pounds	0.181
VOC Potential to Emit	tons/year	0.04161199
HAPs Potential to Emit	tons/year	0.04828057

c) Rubber Compounds 49851-3

Annual 49851-3 usage	Pounds	190961
VOC Emission Factor	Pounds per 1000 Pounds	0.156
Total HAPsEmission Factor	Pounds per 1000 Pounds	0.181
VOC Potential to Emit	tons/year	0.01489496
HAPs Potential to Emit	tons/year	0.01728197
Total Emissions from M.A. Hanna Rubber Compounds		
VOC Potential to Emit	tons/year	0.05720733
HAPs Potential to Emit	tons/year	0.0660483

3.2 Glo-Mold Red Cleanout Rubber Compounds

*No emission factor information available. Using the information from 49851-1
as these products are similar.*

Annual Glo-Mold usage	Pounds	20000
VOC Emission Factor	Pounds per 1000 Pounds	0.0868
Total HAPsEmission Factor	Pounds per 1000 Pounds	0.0602
VOC Potential to Emit	tons/year	0.000868
HAPs Potential to Emit	tons/year	0.000602

3.3 Releasomers RR- Hot EF (mold release agent)

Annual RR-HF usage	gallons	50
VOC Concentration	Pounds per	6.55
Dipropylene Glycol Methylether	Pounds per	2.92
Acetate Concentration	gallons	
VOC Potential to Emit	tons/year	0.16375
HAPs Potential to Emit	tons/year	0.073

3.4 Chem-Trend Inc. - Mold Protector #3

Annual Mold Protector #3 usage	gallons	50
VOC Concentration	Pounds per	8
111-Trichloroethane Concentration	Pounds per	5.49
VOC Potential to Emit	tons/year	0.2
HAPs Potential to Emit	tons/year	0.13725

3.5 Chem-Trend Inc. - Mold Protector #4

Annual Mold Protector #4 usage	gallons	50
VOC Concentration	Pounds per	8
Dipropylene Glycol Methylether	Pounds per	0.129
Acetate Concentration	gallons	
VOC Potential to Emit	tons/year	0.2
HAPs Potential to Emit	tons/year	0.003225

Total potential to emit from Rubber compounds

VOC Potential to Emit	tons/year	0.62182533
HAPs Potential to Emit	tons/year	0.2801253

4. Phosphate Coating Line4.1 Detrex 502 MR

Annual Detrex usage	gallons	1600
VOC Concentration	Pounds per gallons	0
Nickel Compounds Concentration	Pounds per gallons	0.125
VOC Potential to Emit	tons/year	0
HAPs Potential to Emit	tons/year	0.1

4.2 Phosphotex 685

Annual Phosphotex usage	gallons	1100
VOC Concentration	Pounds per gallons	0.385
2-Butoxyethanol Concentration	Pounds per gallons	0.769
VOC Potential to Emit	tons/year	0.21175
HAPs Potential to Emit	tons/year	0.42295

Total potential to emit from Phosphate line

VOC Potential to Emit	tons/year	0.21175
HAPs Potential to Emit	tons/year	0.52295

5. Safety Kleen Solvent

Annual Premium Gold usage	gallons	32
VOC Concentration	Pounds per gallons	6.7
VOC Potential to Emit	tons/year	0.1072

6. Touchup Paint Line

Annual Paint usage	gallons	30
VOC Concentration	Pounds per gallons	4.08
HAPs Concentration	Pounds per gallons	1.14
VOC Potential to Emit	tons/year	0.0612
HAPs Potential to Emit	tons/year	0.0171

Note: for all above calculations:

Potential to Emit of Pollutant (tons/year) = annual usage (pounds/year) X emission factor (pounds/1000 pounds) X 1 ton / 2000 pounds X 1 / 1000
 Potential to Emit of Pollutant (tons/year) = annual usage (gallons/year) X emission factor (pounds/gallon) X 1 ton / 2000 pounds

7. Natural Gas Fired Heaters 10 units of 250,000 Btu/hour eachHeat Input Capacity
MMBtu/hrPotential Throughput
MMCF/yr

2.5

21.9

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100.0	5.5	84.0
Potential Emission in tons/yr	0.0	0.1	0.0	**see below	0.1	0.9

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

See page 2 for HAPs emissions calculations.

8. Emissions Summary

Pollutant	Potential To Emit
PM	0.73
PM-10	0.73
SO2	0.01
VOC	1.06
CO	0.92
NOx	1.10
Single HAP (as worst case assumed to be same as combination of HAPs)	0.82
Combination of HAPs	0.82

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler

Page 1 of ? TSD App A

Company Name:
Address City IN Zip:
CP:
Plt ID:
Reviewer:
Date:

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

0.0

0.0

Pollutant						
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	0.0	5.5	84.0
				**see below		
Potential Emission in tons/yr	0.0	0.0	0.0	0.0	0.0	0.0

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

See page 2 for HAPs emissions calculations.

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updated 4/99

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler
HAPs Emissions

Page 2 of ? TSD App A

Company Name:
Address City IN Zip:
CP:
Plt ID:
Reviewer:
Date:

HAPs - Organics

Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

HAPs - Metals

Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
 Additional HAPs emission factors are available in AP-42, Chapter 1.4.